Quick Start Guide
00825-0100-4765, Rev AA
November 2015

Rosemount™ 8732EM EtherNet/IP™ Module

EMERSON™
Process Management

Installation

Components

- Rosemount 8732EM Transmitter
- 8732EM EtherNet/IP Module
- 8732EM EtherNet/IP Resource CD (*8732EM EtherNet/IP Module User Manual* and EDS file)
- Power connector
- Modbus® serial cable and connector (included)
- Ethernet cable and connector (not included)

Installation and startup summary

1. Mount the transmitter, and wire it to the sensor and to power.
2. Power up the flowmeter, set its Modbus address to 1, and configure its RS-485 terminals as follows: Modbus RTU, 38400 baud, 0-1-2-3 float point order, 2 stop bits, no parity.
3. Mount the ethernet module on the DIN rail.
4. Wire the ethernet module to power (24 VDC).
5. Install the Modbus serial cable between the ethernet module and the RS-485 terminals on the transmitter.
6. Set the configuration dip switches on the ethernet module as follows: Switches 1–7 Off, Switch 8 On. This sets the IP addess to 192.168.0.1.
7. Power up the ethernet module. At this point, the module will attempt to make a Modbus connection to the transmitter. If the Subnet Status LED (LED 5) is green, continue. If it is not green, see "LED indicators" on page -4.
8. Set the network settings for the ethernet module.

a. Change the Ethernet address for your PC so that it is on the same subnet as the device. When prompted, enter the following:
   - IP address: 192.168.0.x, where x is something other than 1
   - Subnet mask: 255.255.255.0

b. Disable the popup blocker on your web browser.

c. Use a crossover cable (or a standard cable with a switch) and your web browser to connect to the device, using the IP address assigned in Step 6: 192.168.0.1.

d. At the login screen, log in as user admin. The default password is admin.

e. On the Network Settings page, change the settings to the desired values and close the web browser.

f. At the ethernet module, set all dip switches to Off.

g. Cycle power to the ethernet module.

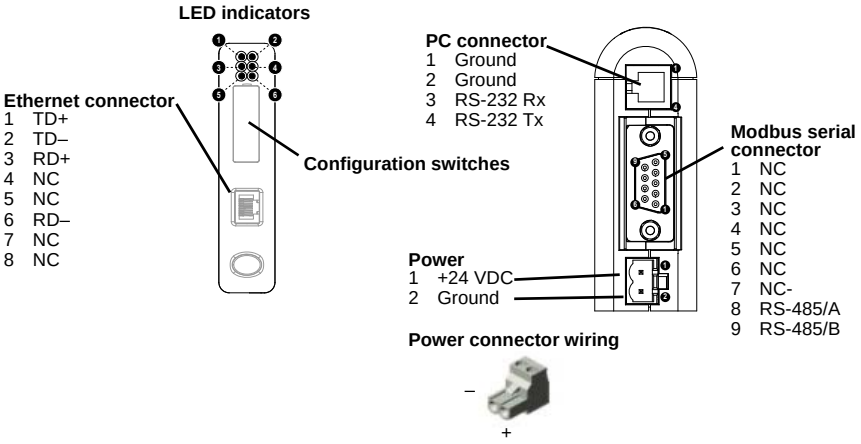
9. Connect the ethernet module to the Ethernet network.

Important
Wait for the autoconfiguration process to complete. This is required to set up device memory.

10. Add the ethernet module to the Ethernet network control system.

    For more detailed instructions, see the transmitter installation manual or the manual entitled *8732EM EtherNet/IP Module: User Manual*.

Connections, switches, and indicators



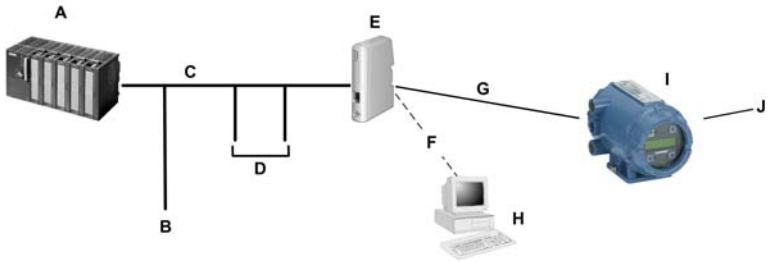
LED indicators

LED number/name			Status	Meaning
Ethernet	1	Module Status	Off	No power applied to the module.
			Solid green	The module is operating correctly.
			Flashing green	Standby; the module has not been initialized.
			Flashing red	Minor fault. The module may or may not be able to recover.
			Solid red	Major fault. No recovery is possible. The module must be retuned to Rosemount for repair. See the manual for the return policy.
			Flashing green/red	Self-test in progress.
	2	Network Status	Off	The module has no power or no IP address has been assigned.
			Solid green	The module has at least one established ethernet connection.
			Flashing green	There are no ethernet connections established to the module.
			Flashing red	One or more of the connections to this module has timed out.
			Solid red	The module has detected that its IP address is already in use.
			Flashing green/red	Self-test in progress.
N/A	3	Link	Off	The module does not sense a link.
			Solid green	The module is connected to an Ethernet network.
	4	Activity	Off	No Ethernet activity.
			Flashing green	The module is receiving and transmitting Ethernet packets.
Modbus Serial	5	Subnet Status	Off	Power off.
			Flashing green	Running correctly, but one or more transaction errors has occurred.
			Solid green	Running.
			Solid red	Transaction error/timeout or network stopped. Check the Modbus serial network wiring and configuration, especially the baud.
			Flashing red	Missed transactions.
	6	Device Status	Off	Power off.
			Flashing red/green	Configuration missing or invalid.
			Solid red	Bootloader mode. Contact Rosemount customer service.
			Flashing red	Note the flash sequence and contact Rosemount customer service.
			Solid green	Initializing.
			Flashing green	Configuration OK.

Functional overview

The ethernet module acts as a gateway between the serial output of the Rosemount device and an ethernet network. It supports process monitoring and control, and configuration and administration from your web browser.

The ethernet module is a Modbus master and an Ethernet slave. On the Modbus side, it polls the transmitter for a standard set of process variables and stores the data locally. On the Ethernet side, it receives requests for data and responds with the current values.



A. PLC
B. Web browser
C. Ethernet
D. Other devices (SCADA, PC, Inverter)
E. EtherNet/IP Module
F. Configuration loop (with configuration cable)
G. Modbus/RS-485
H. PC with Ethernet config tool
I. Rosemount 8732EM Transmitter
J. To sensor

In this illustration:

- The transmitter shown is a Rosemount 8732EM Transmitter.
- The web browser is used for transmitter configuration and administration, via a connection to the Rosemount web pages on the ethernet module.
- The configuration loop is used only by the Ethernet Config Tool. In typical installations, this tool is not needed.

For more information

The 8732EM EtherNet/IP Module is a customization of the Anybus® Communicator™ from HMS Industrial Networks.

- For detailed information about the Rosemount customization, for more detailed installation instructions, and for information about concentration measurement and petroleum measurement options, see the manual entitled *8732EM EtherNet/IP Module: User Manual*.
- For detailed information about the transmitter, see the transmitter documentation.
- For detailed information about the Anybus Communicator, see the manual entitled *Anybus Communicator User Manual*, available on the HMS web site.

Rosemount customer service

Location		Telephone number
U.S.A.		800-522-6277 (toll free)
Canada and Latin America		+1 303-527-5200 (U.S.A.)
Asia	Japan	3 5769-6803
	All other locations	+65 6777-8211 (Singapore)
Europe	U.K.	0870 240 1978 (toll-free)
	All other locations	+31 (0) 318 495 555 (The Netherlands)
Email: flow.support@emerson.com		

UL Certification

c UL US LISTED

IND: CONT. EQ.
FOR HAZ LOC.
CL I, DIV 2
GP A,B,C,D
TEMP
CODE
E203225

Warnings

⚠WARNING

Explosion hazard—Substitution of any components may impair suitability for class I, division 2.

Explosion hazard—When in hazardous locations, turn off power before replacing or wiring modules.

Explosion hazard—Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.

Additional installation and operating EMC Compliance (CE) instructions

- Max Ambient Temperature: 55 °C (for Hazloc environments)
- Field wiring terminal markings (wire type [Cu only, 14-30 AWG]).
- Use 60/75 or 75 °C copper (Cu) wire only.
- Terminal tightening torque must be 5-7 lb-in. (0.5 - 0.8 Nm).
- Use in overvoltage category 1 pollution degree 2 environment.
- Installed in an enclosure considered representative of the intended use.
- Secondary circuit intended to be supplied from an isolating source and protected by overcurrent protective devices installed in the field sized per the following:

Control circuit wire size		Maximum protective device rating
AWG	(mm^2)	Amperes
22	(0.32)	3
20	(0.52)	5
18	(0.82)	7
16	(1.3)	10
14	(2.1)	20
12	(3.3)	25

ODVA Conformity

EtherNet/IP™ conformance tested

EMC Compliance (CE)

CE

This product is in accordance with the EMC directive 89/336/EEC, with amendments 92/31/EEC and 93/68/EEC through conformance with the following standards:

EN 50082-2 (1993)
EN 55011 (1990) Class A

EN 61000-6-2 (1999)
EN 61000-4-3 (1996) 10 V/m
EN 61000-4-6 (1996) 10 V/m (all ports)
EN 61000-4-2 (1995) ±8 kV Air Discharge
±4 kV Contact discharge
EN 61000-4-4 (1995) ±2 kV Power port
±1 kV Other ports
EN 61000-4-5 (1995) ±0.5 kV Power ports (DM/CM)
±1 kV Signal ports

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Global Headquarters
Emerson Process Management
6021 Innovation Blvd.
Shakopee, MN 55379, USA
+1 800 522 6277 or +1 303 527 5200
+1 303 530 8459
Flow.Support@Emerson.com

North America Regional Office
Emerson Process Management
7070 Winchester Circle
Boulder, CO 80301, USA
+1 800 522 6277 or +1 303 527 5200
+1 303 530 8459
Flow.Support@Emerson.com

Latin America Regional Office
Emerson Process Management
Multipark Office Center
Turrubares Building, 3rd & 4th floor
Guachipelin de Escazu, Costa Rica
+1 506 2505 6962
+1 954 846 5121
Flow.Support@Emerson.com

Europe Regional Office
Emerson Process Management Flow B.V.
Neonstraat 1
6718 WX Ede
The Netherlands
+31 (0) 318 495555
+31 (0) 318 495556
Flow.Support@Emerson.com

Asia Pacific Regional Office
Emerson Process Management Asia Pacific Pte Ltd
1 Pandan Crescent
Singapore 128461
+65 6777 8211
+65 6777 0947
APFlow.Support@Emerson.com

Middle East and Africa Regional Office
Emerson Process Management
Emerson FZE P.O. Box 17033,
Jebel Ali Free Zone - South 2
Dubai, United Arab Emirates
+971 4 8118100
+971 4 8865465
FlowTechnicalSupport@Emerson.com

Linkedin.com/company/Emerson-Process-Management

Twitter.com/Rosemount_News

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Youtube.com/user/RosemountMeasurement

Google.com/+RosemountMeasurement

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